

App1. No. 09/830,598
Amdt. dated November 2, 2003
Reply to Office action of May 2, 2003

In the Claims:

Claims 1, 4, 8, 10, 13 and 17 are amended herein. Claims 2, 3, 11 and 12 are canceled. The remaining claims are not amended in this response.

1. (currently amended) A halftone phase shift photomask, comprising tantalum as a main metal component on a transparent substrate, and containing oxygen, carbon and nitrogen, ~~and not containing silicon~~, which photomask has a multilayer structure comprising at least two or more different layers, which includes at least one layer wherein the composition ratio of tantalum atoms and other atoms is such that 100 or less other atoms are contained per 100 tantalum atoms.

Claims 2 and 3, cancel.

4. (currently amended) ~~The halftone phase shift photomask according to claim 1~~ A halftone phase shift photomask comprising on a transparent substrate and a halftone phase shift film containing at least tantalum, oxygen, carbon and nitrogen, which photomask has a multilayer structure comprising at least two or more different layers, which includes at least one layer wherein the composition ratio of tantalum atoms and oxygen and nitrogen atoms is such that 50 to 250 175 oxygen atoms and 1 to 200 nitrogen atoms are contained per 100 tantalum atoms.

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5. (original) The halftone phase shift photomask according to claim 1, which has a structure wherein a film with the composition ratio of tantalum atoms and oxygen atoms being such that at least 100 oxygen atoms are contained per 100 tantalum atoms is laminated on a film with the composition ratio of tantalum atoms and other atoms being such that 100 or less other atoms are contained per 100 tantalum atoms.

6. (original) The halftone phase shift photomask according to claim 1, which has a structure wherein a film with the composition ratio of tantalum atoms and oxygen and nitrogen atoms being such that 50 to 250 oxygen atoms and 1 to 200 nitrogen atoms are contained per 100 tantalum atoms is laminated on a film with the composition ratio of tantalum atoms and other atoms being such that 100 or less other atoms are contained per 100 tantalum atoms.

7. (original) The halftone phase shift photomask according to claim 1, which has a structure wherein a film with the composition ratio of tantalum atoms and other atoms being such that 100 or less other atoms are contained per 100 tantalum atoms is directly formed on the transparent substrate, with subsequent films laminated successively thereon.

8. (currently amended) The halftone phase shift photomask according to any one of claims 1, and 4 to 7, which has a

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structure wherein an etching stopper layer is formed on the transparent substrate, with halftone phase shift films laminated successively thereon.

9. (original) The halftone phase shift photomask according to claim 8, which has a structure wherein halftone phase shift films are successively laminated on the etching stopper layer formed of a film composed mainly of hafnium oxide.

10. (currently amended) A halftone phase shift photomask blank comprising on a transparent substrate a halftone phase shift film containing at least tantalum, oxygen, carbon and nitrogen, which has a multilayer structure comprising two or more different layers, which includes at least one layer wherein the composition ratio of tantalum atoms and other atoms is such that 100 or less other atoms are contained per 100 tantalum atoms.

Claims 11 and 12, cancel.

13. (currently amended) ~~The halftone phase shift photomask blank according to claim 10~~ A halftone phase shift photomask blank comprising on a transparent substrate a halftone phase shift film containing at least tantalum, oxygen, carbon and nitrogen, which has a multilayer structure comprising two or more different layers, which includes at least one layer wherein the composition ratio of tantalum atoms and oxygen and nitrogen atoms

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is such that 50 to ~~250~~ 175 oxygen atoms and 1 to 200 nitrogen atoms are contained per 100 tantalum atoms.

14. (original) The halftone phase shift photomask blank according to claim 10, which has a structure wherein a film with the composition ratio of tantalum atoms and oxygen atoms being such that at least 100 oxygen atoms are contained per 100 tantalum atoms is laminated on a film with the composition ratio of tantalum atoms and other atoms being such that 100 or less other atoms are contained per 100 tantalum atoms.

15. (original) The halftone phase shift photomask blank according to claim 10, which has a structure wherein a film with the composition ratio of tantalum atoms and oxygen and nitrogen atoms being such that 50 to 250 oxygen atoms and 1 to 200 nitrogen atoms are contained per 100 tantalum atoms is laminated on a film with the composition ratio of tantalum atoms and other atoms being such that 100 or less other atoms are contained per 100 tantalum atoms.

16. (original) The halftone phase shift photomask blank according to claim 10, which has a structure wherein a film with the composition ratio of tantalum atoms and other atoms being such that 100 or less other atoms are contained per 100 tantalum atoms is directly formed on the transparent substrate, with subsequent films laminated successively thereon.

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17. (currently amended) The halftone phase shift photomask blank according to any one of claims 10, and 13 to 16, which has a structure wherein an etching stopper layer is formed on the transparent substrate, with halftone phase shift films laminated successively thereon.

18. (original) The halftone phase shift photomask blank according to claim 17, which has a structure wherein halftone phase shift films are successively laminated on the etching stopper layer formed of a film composed mainly of hafnium oxide.